

Red River Authority of Texas Program Updates



CLEAN RIVERS PROGRAM 2012 ANNUAL BAC MEETING



MARCH 27, 2012 – WICHITA FALLS, TEXAS

**ALLEN M. PAPPAS
RED RIVER AUTHORITY OF TEXAS
CLEAN RIVERS PROGRAM PROJECT MANAGER**

Topics



1. Monitoring

- a. Quantity
- b. Quality
- c. Drought

2. Analysis

- a. Equipment Purchases
- b. Chlorophyll-*a* / pheophytin
- c. Bacteria Holding Time Study

3. Outreach

- a. Midwestern State University
- b. Local Cub Scout Packs

Monitoring



Quantity

- FY-2012
 - Approximately 23 additional monitoring locations
 - ✦ 3 in the Canadian River Basin
 - ✦ 20 in the Red River Basin
- Stations were added/created to
 - Continue monitoring for long term lake/reservoir locations
 - Gather additional information at site with
 - ✦ Long-term 303(d) impairments
 - ✦ No recent data

Monitoring



Red River Basin Stream Sites

- Bois D' Arc Creek @ FM 898 (Site 15036)
- Buffalo Creek @ Coleman Park Road (Site 16036)
- Groesbeck Creek @ SH 6 (Site 20166)
- Holliday Creek @ Harding Street (Site 10095)
- Holliday Creek near WFCC Golf Course (Site 21025)
- Mud Creek @ US 259 (Site 15319)
- Red River @ SH 6 (Site 10135)
- Smith Creek @ CR 31700 near City of Paris (Site 21026)
- Smith Creek @ Loop 286 (US 82) (Site 21027)
- Sweetwater Creek @ FM 592 (Site 10070)
- Sweetwater Creek @ US 83 (Site 10072)
- Wichita River @ End of Eastland Lane (Site 10148)
- Wichita River @ SH 240 (Site 10150)
- Wildhorse Creek @ US 277/281 (Site 10096)

Added due to TCEQ funding cuts

Added to evaluate long-term impairment(s)

Monitoring



Red River Basin Lake/Reservoir Sites

- Diversion Lake near Dam (Site 10157)
- Farmer's Ck Reservoir/Lake Nocona near Dam (Site 10139)
- Lake Arrowhead Mid Lake near Dam (Site 10142)
- Lake Kemp near Dam (Site 10159)
- Lake Kemp @ North Wichita River Headwaters (Site 10160)
- Lake Kickapoo near Mid Dam (Site 10143)

Added due to TCEQ funding cuts

Added to evaluate long-term impairment(s)

Monitoring



Quality

- Field
 - Increased QA/QC for sondes
 - Documentation of all lot numbers/serial numbers
 - Development of a standardized SOP
- Laboratory
 - Certified disposable sample containers
 - Implementation of a LIM system

Monitoring



Drought

- Interim Drought Guidance
 - Collect meta-data to more accurately document conditions
 - Help categorize “drought-data”
 - Prevent data from being used during future assessments
- Current Goals
 - Develop a parameter code to document drought index
 - Continue to enhance the meta-data collected during monitoring events
 - Continue to work on how to identify/tag “drought-data”

Analyses



Equipment Purchases

- Fluorometer
 - Chlorophyll-*a* / Pheophytin
- Segmented Flow Analyzer
 - TKN
 - Nitrate + Nitrite
 - Ammonia
 - TN
- Boat
 - Lake profiling

Analyses



Chlorophyll-*a* / Pheophytin

- Methods
 - EPA 445.0 – Fluorometric method
 - ✦ Increased sensitivity
 - Obstacles
 - ✦ High turbidity
 - ✦ Particulate/suspended matter
- Side-by-Side Study
 - Results?
 - Scheduled to begin in-house testing in FY-2013

Analyses



Bacteria Holding Time Study

- Remote SWQM Locations create the need for extended holding time
 - EPA's Long Term 2 Enhanced Surface Water Treatment (LT2)
 - January 5, 2006 - Federal Register Final Rule established a holding time not to exceed 30 hours
 - States have the option to extend this to 48 hours – Study
- Study Details
 - Sampling period began April, 2011 through August, 2012
 - Participating labs include: RRA, LCRA, TCEQ and IWQL

Public Outreach



Midwestern State University

○ Environmental Science Internship Program

- ✦ To date we have had four interns, all of which have pursued careers in the environmental field
 - 2 in graduate programs
 - 1 with the Red River Authority
- ✦ We are currently looking to potentially host another intern over the summer

○ Tours

- ✦ MWSU Environmental Science Majors
- ✦ Cub Scout Packs

Local Cub Scout Packs

- Introduce them to water quality and how they can help

Questions



RED RIVER AUTHORITY OF TEXAS



Clean Rivers
Program
Partner since
1991



NELAP
accredited
laboratory
since 2006

Contact Information

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